

Vice President breaks ground for neutron facility

Secretary outlines FY 2001 budget request



U.S. Department of Energy



Published monthly in Washington, D.C., by the Department of Energy, Office of Public Affairs, for the information of Department employees and affiliates and available to others by paid subscription.

The Secretary of Energy has determined that this periodical is necessary in the transaction of public business as required by law. Use of funds for printing has been approved by the director of the Office of Management and Budget. The content is reprintable without permission and pictures are available for media reproduction upon request.

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SUBSCRIPTION price for 12 issues is \$22 (\$27.50 foreign). Send check, or provide VISA or Mastercard number and expiration date, to: Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954. Credit-card orders can be called in 8 a.m.-4 p.m. ET, 202-512-1800, or faxed to 202-512-2250. Cite "DOE This Month (EINS)."

Circulation Office: 202-586-2050

News Office:

DOE This Month
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U.S. Department of Energy
Washington, DC 20585

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HQ cc:mail:

THISMONTH, DOE

Deadline for submissions: 15th of every month for the following month.

DOE PA-0023-1 Vol. 23, No. 1

DOE This Month is printed on paper containing at least 50 percent recycled materials.

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The Department of Energy is taking steps toward establishment of the National Nuclear Security Administration, a new semi-autonomous agency within the Department mandated by the Fiscal Year 2000 Defense Authorization Act.



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Secretary of Energy Bill Richardson has designated the Department of Energy's Federal Energy Technology Center in Morgantown, W.V., and Pittsburgh, Pa., as the Department's newest national laboratory. The facility has been renamed the National Energy Technology Laboratory.



On our cover

n Jan. 14, Secretary of Energy Bill Richardson signed an agreement among the Departments of Energy and the Interior, the State of Utah, and the Ute Indian Tribe to transfer 84,000 acres of the Department of Energy's Naval Oil Shale Reserve No. 2 in Utah to the Ute Tribe—the largest voluntary return of land to Native Americans in the lower 48 states in more than 100 years. The agreement also covers the cleanup and removal of 10.5 million tons of radioactive uranium mill tailings near the Arches and Canyonlands National Parks near Moab, Utah. From a vantage point overlooking the tailings, Secretary Richardson announced the plan to Moab residents.

For more on the tailings cleanup and return of land, see page 3.

Secretary announces agreement for tailings cleanup, return of land to Ute Tribe

On Jan. 14, Secretary of Energy Bill Richardson, Secretary of the Interior Bruce Babbitt, Utah Governor Michael Leavitt, and Ute Tribal Business Committee Chairman O. Roland McCook, Sr. signed an agreement for the largest voluntary return of land to Native Americans in the lower 48 states in more than 100 years. The agreement also covers the cleanup and removal of 10.5 million tons of radioactive uranium mill tailings from the doorstep of Arches National Park and Canyonlands National Park, near Moab, Utah.

"Today, we're doing the right thing—the right thing for the environment, the right thing for the Utes, the right thing for the state of Utah, and the right thing for the American people," Secretary Richardson said as he announced the agreement in Moab and at Fort Duchesne on the Ute Indian Tribe reservation.

"Today's agreement gives us the momentum we need for congressional action." The Administration will seek legislation to carry out the land transfer and the mill tailings cleanup.

The land to be returned—the Department of Energy's 89,000-acre Naval Oil Shale Reserve No. 2-was taken from the Ute reservation in 1916 to secure its rich oil shale deposits as a potential source of fuel for the U.S. Navy. Under the agreement, the United States would convev to the Ute Indian Tribe all of the reserve except for a tract of approximately 5,000 acres west of the Green River that would be transferred to the Department of the Interior. The Ute Tribe has agreed to establish a 1/4-mile land corridor for a 75-mile stretch of the Green River that will be protected as environmentally sensitive.

Under the agreement, the Depart-

ment of Energy will seek funding and authority to take over from the Nuclear Regulatory Commission the removal and cleanup of a 110-foot mound of uranium mill tailings located near the Arches and Canyonlands National Parks. Additionally, the Ute Tribe agreed that a portion of any royalties from future energy production on the returned lands would go into a fund to help with the cleanup. The radioactive waste resulted from nearly 30 years of uranium mining operations. The estimated cost to move the tailings away from Moab is about \$300 million.

"The time to act is now," Secretary Richardson said. "The Department of Energy has the expertise and experience to relocate the material in a secure, permanent location that is safely away from the Colorado River and the national parks."

Vice President, Secretary break SNS ground

On Dec. 15, 1999, Vice President Al Gore, Secretary of Energy Bill Richardson, Tennessee Governor Don Sundquist, U.S. Senator Bill Frist, and a number of other dignitaries and employees participated in the groundbreaking for the Spallation Neutron Source (SNS) project in Oak Ridge, Tenn.

The Vice President praised the scientific importance of the SNS to academic and industry users. When completed in 2005, the \$1.36 billion neutron research facility will produce the world's most powerful pulsed beams of neutrons, creating a boon for researchers investigating ways to improve materials that will make cars safer, airplanes faster, drugs better, and computers more powerful.

"The vitality of America's position in materials and biological research will depend on discoveries yet unfound and made by scientists unknown to us today," said Vice President Gore. "It was here at Oak Ridge that Nobel Laureate Clifford Schull and his colleague Ernie Wollen pioneered neutron scattering science. It was here at Oak Ridge that we learned how to unleash the destructive power of the atom. And it is here, at Oak Ridge, that we will now be able to look at how atoms build structures-and unleash their constructive power to improve the lives of men and women everywhere and bolster the economic future of our country."

The SNS project is a partnership of five Department national laboratories—Oak Ridge,

Argonne, Brookhaven, Lawrence Berkeley, and Los Alamos. Each laboratory is building a component of the project.

"This facility will be yet another example of why we are our nation's leading experts in building and operating first-of-a-kind world class



Breaking ground for the Spallation Neutron Source are (I-r) U.S. Rep. Zach Wamp, U.S. Rep. John J. Duncan, Jr., Secretary of Energy Bill Richardson, Tennessee Governor Don Sundquist, Vice President Al Gore, and U.S. Senator Bill Frist.

scientific tools," said Secretary Richardson. "This facility was designed from the beginning to take advantage of the best minds in our country's neutron scattering community and, at the same time, make the most efficient use of people and resources." •

Department proceeds with implementation of National Nuclear Security Administration

The Department of Energy is taking steps toward establishment of the National Nuclear Security Administration (NNSA), a new semi-autonomous agency within the Department to be responsible for managing the Department's defense complex. The new agency is mandated by the Fiscal Year 2000 Defense Authorization Act approved by President Clinton on Oct. 5, 1999.

On Dec. 30, 1999, Secretary Richardson named a high-level search committee to find qualified candidates for the new position of Under Secretary for Nuclear Security, who will also serve as Administrator of the NNSA. The committee was named after Secretary Richardson received assurances from Senator Pete Domenici (R-NM) that he would help with a legislative change that clarifies the Secretary of Energy's authority over the new agency.

Former Deputy Secretary of Energy Charles Curtis chairs the search committee. Its other members are former Secretary of Energy Admiral James D. Watkins; Admiral Henry G. Chiles, who has studied workforce development issues facing the Department; and Andrew Athy, Chairman of the Secretary of Energy Advisory Board. The committee's work will aid Secretary Richardson in

identifying a qualified candidate for Presidential nomination to the United States Senate.

On Jan. 7, the NNSA Implementation Plan was delivered to Congress. Under the statute, the new administration is established March 1, 2000. The plan details the program offices and national security functions which will be part of the agency, clarifies those Departmental functions which are not functions of the new agency, and discusses how the Office of the Administrator will be staffed and organized.

Specifically, the NNSA will include the current Offices of Defense Programs, Nonproliferation and National Security, and Naval Reactors. Each of the new NNSA offices—Defense Programs, Defense Nuclear Nonproliferation, and Naval Reactors-will be headed by a Deputy Administrator. The current Office of Fissile Materials Disposition will be incorporated into the new Office of Defense Nuclear Nonproliferation and headed by an Assistant Deputy Administrator, who also will serve as the Special Secretarial Negotiator for Plutonium Disposition.

Under the plan, the Albuquerque and Nevada Operations Offices also will be transferred to the NNSA. The employees of these field offices, with the exception of those accountable to non-NNSA program offices, will become employees of the NNSA. At other Department field offices with responsibility for NNSA activities, those employees who directly oversee these activities will become employees of the NNSA.

The plan also provides for support functions within the NNSA—legal, security, counterintelligence, legislative affairs, public affairs, intergovernmental liaison, budget, and procurement. Due to a number of factors, the plan calls for certain Department officers to serve concurrently in some of these support function positions. Field managers at selected operations offices also will serve concurrently in dual positions.

"As the Department implements this plan, it is very important that our across-the-board scientific work and collaboration, which encompasses all of the Department's research facilities, not be compromised by the NNSA's creation," said Secretary Richardson. "We must work to ensure that all of the missions of the Department have access to the technical expertise and specialized facilities at all of the laboratories and sites."

The implementation plan is available at http://www.doe.gov/news/nnsa.pdf. *

Lessons learned, benefits gained from Y2K

After months of preparation by the Department of Energy and the energy sectors, the year 2000 arrived without panic or major problems. On Jan. 2, Secretary of Energy Bill Richardson reflected on the success of all the hard work.

"Fizzle is good...dull is good," Secretary Richardson observed about the energy sectors' smooth transitions into the new millennium. "Our goal was for a simple, uneventful, uncomplicated changeover, and we achieved that. Despite doomsday predictions by some, the lights stayed on and energy supplies kept flowing."

Secretary Richardson pointed to four direct energy-related benefits that resulted from Y2K preparations:

- Millions of Americans who could have lost heat and power did not because Y2K problems were found and corrections were made in equipment and computer chips in some electric and natural gas utility systems.
- If preventive Y2K measures had not been taken, there could have been glitches in world oil supply systems that could have combined to disrupt global oil supplies.
- The nation's utility industries and the Federal Government are now

better able to coordinate efforts to improve reliability and prevent future disruptions in service.

• The Department has enhanced its internal procedures for using the Strategic Petroleum Reserve in the event of a future oil supply disruption.

"We've learned when government agencies work cooperatively, and when government, industry and the American public work together, we get very positive results," Secretary Richardson said. "We've also learned that when you're open and candid with the public, they know what to do." *

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Itkin heads civilian radioactive waste office

On Dec. 2, 1999, Secretary of Energy Bill Richardson administered the oath of office to Dr. Ivan Itkin as the new Director, Office of Civilian Radioactive Waste Management. The office is responsible for developing the Nation's waste disposal system for commercial spent nuclear fuel and high-level radioactive waste. Itkin was confirmed by the United States Senate on Nov. 19, 1999.

"Dr. Itkin's technical expertise, academic credentials, and his experience as a legislator are extraordinary assets he will surely draw on," said Secretary Richardson. "I am confident he is ready to hit the ground running in his new position."

Itkin formerly served as Pennsylvania State Representative from 1973 to 1998. During his tenure, he chaired the House Mines and Energy Management Committee and served as Majority Leader and Democratic Whip. In 1998, he was the Democratic candidate for

Governor of Pennsylvania.

A nuclear scientist. Itkin worked at the Department of Energy's Bettis Atomic Power Laboratory for 16 years designing nuclear propulsion systems for U.S. Navy submarines and contributing to the development of the nuclear-powered Navy. His involvement in nuclear energy issues continued during his public service career.

Itkin has a bachelor's degree in chemical engineering from the Polytechnic Institute of Brooklyn, a

At the swearing-in ceremony are (I-r) Secretary Richardson, Dr. Ivan Itkin, his wife Joyce and sons Marc and Max, and Deputy Secretary Glauthier.

master's degree in nuclear engineering from New York University, and a doctoral degree in mathematics from the University of Pittsburgh. ❖

NE sponsors new minority education programs

William D. Magwood IV, Director of the Department of Energy's Office of Nuclear Energy, Science and Technology (NE), recently announced two new education initiatives to encourage minority students to become involved in programs of study related to nuclear energy. He made the announcement at South Carolina State University (SCSU), a Historically Black College and University (HBCU) in Orangeburg, S.C.

The first initiative will establish a scholarship and fellowship program involving HBCUs, Hispanic-Serving Institutions, and Native American Tribal Colleges for students interested in pursuing a nuclear engineering degree. It will also pair minority institutions with nuclear engineering degree-granting institutions to increase the number of minority students entering that field. SCSU and the University of Wisconsin will participate in a pilot program beginning in January, with

expansion to other universities planned by fall 2000.

The second program will provide at least \$100,000 a year for three years to establish a faculty chair in nuclear engineering at SCSU. Several regional nuclear utilities also have expressed interest in supporting this initiative. This is the second chair in nuclear engineering that NE has sponsored at a minority institution; the other chair is

at Morgan State University, Baltimore, Md.

During his visit to South Carolina State, Magwood spoke to engineering students and faculty about NE's university programs. He also met with Dr. Leroy Davis, SCSU Presi-



William D. Magwood IV (center), Director, DOE Office of Nuclear Energy, Science and Technology, meets with Dr. Leroy Davis (left), President, South Carolina State University, and Dr. James Anderson, Dean, SCSU School of Engineering Technology and Sciences.

dent; Dr. Roy Isabel, Associate Vice President for Research and Graduate Studies; and Dr. James Anderson, Dean of the School of Engineering Technology and Sciences, to discuss implementation of the two new programs. •

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U.S., Africa energy ministers meet in Tucson

On Dec. 13-15, 1999, Secretary of Energy Bill Richardson and Mayor George Miller of Tucson, Arizona, welcomed representatives from 47 countries at the U.S.-Africa Energy Ministers' Conference. The conference, sponsored by the Department of Energy and the City of Tucson, was aimed at improving investment opportunities in Africa's energy sector.

The meeting was the first continent-wide gathering of African Energy Ministers. The Energy Ministers met to carry forward a cooperative partnership initiated in March 1999 at the U.S.-Africa Ministerial, in Washington, D.C., under the "Blueprint for U.S.-Africa Partnership" and to strengthen energy cooperation among and between the United States and the countries of Africa.

Six new energy projects between the Department of Energy and African countries were announced at the conference. "Each of these projects symbolizes the United States' commitment to help build a sustainable energy infrastructure, integrate energy markets and improve prosperity throughout Africa," said Secretary Richardson. The six projects are:

• The Department, in partnership with the Overseas Private Investment Corporation, will create the U.S.-Africa Sustainable Energy Program to facilitate investment in

- sustainable energy projects.
- Secretary Richardson and the government of Morocco will hold a conference this spring on building capacity and support for implementing sustainable energy technologies in the region.
- The Department, working with the International Maritime Organization and interested African countries, will hold an oil spill emergency plan-

ning and response workshop late this year. Concurrently, the Departments of Energy and Commerce will cosponsor an event focused on environmentally sound oil exploration, development, and transportation technologies.

- The Department and the University of Houston's Energy Institute are developing a two-week training program, "New Era for Oil and Gas Value Creation," to be offered at the university this spring or summer.
- The Department and the University of Arizona are establishing a Summer Energy Institute to follow up on the themes of the U.S.-Africa Energy Ministers Conference.



Secretary Richardson and representatives from African nations at the U.S.-Africa Energy Ministers Conference.

• The Department and the U.S. Agency for International Development will contribute \$1.5 million over the next two years to provide technical assistance and training to the Southern Africa Development Community Energy Commission and member countries.

The African Energy Ministers also endorsed a Joint Statement on Sustainable Energy Development and Cooperation in Support of the Environment and a Joint Statement on Investment Principles for the Energy Sector. The statements are available at http://www.doe.gov/news/releases99/decpr/prn99084.htm.

Awards recognize performance excellence

Seven Department of Energy organizations recently received 1999 Secretary of Energy Performance Excellence Awards in recognition of their quality management achievements. Deputy Secretary of Energy T.J. Glauthier presented the fifth annual awards in December in a ceremony at Department of Energy Headquarters, Washington, D.C.

"Each of these organizations has put their customers first and demonstrated a commitment to excellence," said Deputy Secretary Glauthier. "They each found ways to improve and build more effective partnerships and find highly cost-effective solutions for the American public."

The Energy Performance Excellence Awards are modeled after the President's Quality Award and Malcolm Baldrige National Quality Award. The awards, designed to help transform the Department into an efficient and customer-focused agency, are open to all DOE Federal and performance-based contractor organizations.

The winning organizations are:

• Wackenhut Services Inc.-Savannah River, Savannah River Site, Aiken, S.C.

- Analytical Chemistry Organization, Lockheed Martin Energy Systems, Y-12 Plant, Oak Ridge, Tenn.
- Oak Ridge Institute for Science and Education, Oak Ridge, Tenn.
- Office of Hearings and Appeals, DOE Headquarters, Washington, D.C.
- International Technology Corporation, DOE Nevada Operations, Las Vegas, Nev.
- Strategic Petroleum Reserve Program Office, DOE Headquarters.
- Supplier Quality Information Group, Brookhaven National Laboratory, Upton, N.Y. ❖

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Secretary takes stand against racial profiling

"The Department of Energy will neither commit nor tolerate racial profiling," Secretary of Energy Bill Richardson said Jan. 19, as he vowed to continue to fight racial discrimination at the Department and announced eight immediate actions to ensure that racial profiling is not used at any DOE facility. Secretary Richardson made the announcement after receiving a report and recommendations from the Task Force Against Racial Profiling which he established last year to investigate the issue at Department facilities.

The task force made several general observations, including noting an atmosphere of distrust and suspicion with employees feeling their loyalty and patriotism questioned because of racial factors. "Looking at the task force's findings, I deeply regret that some employees lost their trust in the United States Government," Secretary Richardson said.

The immediate actions include:

- appointing Jeremy Wu, formerly Deputy Director, Office of Civil Rights, U.S. Department of Agriculture, to a newly created position of National Ombudsman and Director, Office of Ombudsman, to be available for Department employees with concerns and to monitor and review diversity management matters;
- conducting a Department-wide equal employment and diversity "stand-down" to explain the task force's findings, provide data on minority hiring, and review the Department's diversity protections and practices;
- expanding outreach at leading universities to combat recruitment and retention problems at Department laboratories;
- changing equal employment systems and procedures to ensure timely and effective handling of concerns and establishing local ombudsman functions at all

Department sites;

- expanding outreach to CEOs of the Department's contractors to inform them of the task force's work and findings and to reiterate the Department's policies against discrimination and racial profiling;
- strengthening contract provisions with the Department's contractors to provide better tracking and evaluation of diversity management activities;
- appointing Daphne Kwok, Organization of Chinese Americans, to serve on the Secretary of Energy Advisory Board; and
- appointing a Department team to review and make suggestions on implementing the remaining task force recommendations and to monitor and report to Secretary Richardson on implementation of the eight immediate actions.

The Task Force Against Racial Profiling Final Report is available at http://www.doe.gov/news/docs/rprofilerpt.pdf.

A 'WIN'ning effort



The Workplace Improvement Network (WIN), chartered by Secretary of Energy Bill Richardson to identify, evaluate and recommend the implementation of employee ideas to improve the workplace at Department of Energy Headquarters, officially kicked off its efforts Nov. 10, 1999. The WIN team (above) is comprised of employees from all Headquarters organizations. The team is under the leadership of co-champions Linda Sye, Director, Office of Administration, and Tim Dirks, Director, Office of Human Resources Management. John Robinson, Senior Policy Advisor

to the Secretary for Workforce Issues, is a consultant to the team. The National Treasury Employees Union is a partner in the initiative. The team is evaluating dozens of employee ideas, many of which surfaced at recent town hall meetings held by Secretary Richardson. Ideas currently being implemented include the designation of additional handicapped parking spaces in the Forrestal Building garage, an increase in the SEET transit subsidy, and the establishment of a fitness facility in the Germantown Building. *

Internet

International database

Department of Energy and contractor employees can now access citations to international energy information. The arrangement is courtesy of the Department's Office of Scientific and Technical Information (OSTI) which represents the Department and the U.S. in international information exchange agreements.

The Energy Technology Data Exchange World Energy Base (ETDEWEB), a product of an International Energy Agency agreement, offers information about energy research and development results; the environment; energy policy, resources, and technologies; and much more. The address is http://www.etde.org/ETDEWEB; register your userid and password at http://www.etde.org/etdeweb/us-reg.html.

Any questions, contact Debbie Cutler, OSTI, 865-576-1272. ❖

Beryllium disease prevention program set

On Dec. 8, 1999, the Department of Energy achieved a significant milestone in its efforts to protect workers from the health effects caused by exposure to beryllium with the issuance of a final beryllium protection rule. The new rule requires all Department sites with potential beryllium exposure to workers to put in place strict controls to minimize exposure and to provide for early detection of chronic beryllium disease.

"We worked aggressively to get this rule done very quickly because we want to provide strong protection for the workers who may be exposed to beryllium as the Department dismantles and decommissions the facilities of the nuclear weapons complex," said Secretary of Energy Bill Richardson. In addition to the rule, Secretary Richardson recently proposed legislation to establish a beryllium compensation program for Department contractor workers who have already become sick with beryllium disease.

The final rule, Title 10 Code of Federal Regulations Part 850, "Chronic Beryllium Disease Prevention Program," was published in the *Federal Register* (64 FR 68853). The rule took effect Jan. 7, 2000. Contractors at Department sites with potential worker exposure to beryllium are required to submit a detailed plan to meet the rule's requirements within 90 days of that date. All sites must be in full compliance with the new rule within two years.

The final rule sets out an "action level" that will trigger mandatory worker protection measures at 0.2 micrograms of beryllium per cubic meter of air, more strict than the current exposure standard of 2 micrograms or the previously proposed action level of 0.5 micrograms. At this level, worker protection measures include required use of respirators, increased workplace monitoring, formal programs to minimize worker exposure, isolating and restricting access to areas with beryllium, enhanced worker training,

and worker counseling and support.

Beryllium is a metal that has been used in many nuclear applications by the Department and its predecessor agencies over the past 50 years. Inhaling beryllium dust or particles can cause beryllium sensitization, where the immune system becomes allergic to the presence of beryllium in the body, and Chronic Beryllium Disease, an irreversible, often disabling, and sometimes fatal lung condition.

To date, the Department has identified 223 cases of beryllium sensitization and 146 cases of Chronic Beryllium Disease among more than 11,800 current and former workers that have been screened. Of the cases identified, most workers are from the Rocky Flats and Oak Ridge sites.

The Department's Office of Environment, Safety and Health (EH) is coordinating implementation of the final rule. For additional information on the beryllium program or a copy of the final rule, contact Ed Patigalia, EH, 301-903-3972, or visit the Internet site at http://tis.eh.doe.gov/be/. ❖

Department salutes African American history

African American History Month is observed nationwide during the month of February. Many Department of Energy sites and facilities coordinated activities commemorating the theme of this year's observance, "Heritage and Horizons: The African American Legacy and the Challenges of the 21st Century."

"African American History Month is a time to celebrate the collective ingenuity, creativity, cultural and political experience of African Americans throughout the world," Secretary of Energy Bill Richardson said in a message to Department employees. "The observance of African American History Month not only serves to remind us of the great ethnic diversity that embraces all people of our society, but it also provides a welcome opportunity to share our common experiences, and to reaffirm our commitment to equal

economic, social and educational access."

On Feb. 9. Secretary Richardson kicked off DOE Headquarters' observance of African American History Month with a special program of songs and remembrance in the Forrestal Building Auditorium. Secretary Richardson was joined by Thurgood Marshall, Jr., Assistant to the President and Cabinet Secretary. Students from the Duke Ellington School of Fine Arts and Cardoza High School performed musical selections that were enjoyed by all.

Programs and activities also were held at Headquarters Germantown Building. The Headquarters observance was sponsored by the Office of Economic Impact and Diversity, the National Treasury



Students from the Duke Ellington School of Fine Arts entertain employees at the DOE Headquarters observance of African American History Month.

Employees Union Chapters 228 and 213, the Energy Information Administration, the DOE Diversity Council, and the DOE Chapter of Blacks in Government. •

Final Paducah investigation report issued

On Feb. 10, the Department of Energy issued the final report from its investigation of past environment, safety and health practices at the Paducah Gaseous Diffusion Plant in western Kentucky. The report discusses the plant's operations from 1952 to 1990 and is the second phase of an independent and comprehensive investigation ordered by Secretary of Energy Bill Richardson last August.

"This report, as we suspected, tells us that the Paducah site operated with a lack of understanding of a number of environment, safety and health hazards and risks," said Dr. David Michaels, Assistant Secretary for Environment, Safety and Health. "The findings of this investigation, together with similar investigations at the Portsmouth and Oak Ridge Gaseous Diffusion Plants, will be used to inform the Clinton/Gore Administration's legislative efforts to compensate workers who have become ill because of workplace exposures."

According to the report, safety and health procedures at the Paducah plant were in place and were generally consistent with the requirements at the time—although many of these procedures and controls would not meet today's more stringent requirements. The team concluded, however, that a number of these safety and health procedures were not followed on a regular basis. In addition, the report indicates that some management decisions caused worker radiation exposures to be higher than necessary and that a number of workers were exposed to hazards that were not adequately monitored or understood.

Records demonstrate that certain work locations and activities posed higher exposure risks to radiological and chemical hazards, such as the production processes that involved individual exposure to transuranic elements in handling feed production ash and in uranium, neptunium and technetium recovery operations. The report notes that communication to workers about the types of radiation and chemical hazards found in their working environment was generally inadequate.

The report provides important background information to support

the Administration's worker compensation proposals. The information also will be used in ongoing assessments of worker exposures to specific chemical and radioactive materials and the health effects of those exposures.

The first phase of the two-part Paducah investigation focused on current environmental and safety risks and practices of the Department's cleanup work. The phase one report was released in October 1999 and a corrective action plan was developed to address each of the findings in the report.

The Paducah investigation team included 12 permanent Department employees from the Office of Oversight in the Office of Environment, Safety and Health and 11 technical advisors. None of the team members had an involvement in past operational activities at the plant or a special interest in the outcome of the investigation.

The report is available on the Internet at http://tis.eh.doe.gov/oversight/paducah/phase2/ *

Air monitor instantly detects beryllium

Researchers at the Department of Energy's Los Alamos National Laboratory (LANL) have developed a portable, ultrasensitive air particulate monitor that instantly and continuously identifies beryllium and virtually all known constituent elements in the periodic table and their relative concentrations. "The monitor is about 10 times more sensitive for air particulate monitoring than laserbased technologies, which are the only field technologies currently available," said principal investigator Yixiang Duan of LANL's Analytical Chemistry Sciences Group.

"The monitor can detect almost all hazardous elements, although our project's initial focus was on creating an ultrasensitive monitor for detecting beryllium air particulates," Duan said. "I've no doubt that this portable instrument will greatly reduce, or in some cases, eliminate, the risk of worker exposure to hazards related to operating processes."

The inexpensive device can be used indoors and outdoors and takes advantage of the fact that all elements in the periodic table have well-characterized atomic energy levels. A miniature microwave plasma source in the device excites the atoms, permitting quick, easy identification of air particulate samples based on the energy levels of those elements.

An airborne sample is pumped through a tube into the heart of the microwave plasma source. A fiberoptic cable alongside the plasma source detects the optical emissions from the elements and feeds that information to a palm-sized spectrometer, which converts the information into a graph that shows each element's specific wavelengths and concentration intensities on a laptop computer screen. Samples in solution are analyzed in the same way simply by changing the air sampling pump to one suited for handling solution samples. Results are virtually instantaneous, requiring about 100 milliseconds.

The monitor weighs about 55 pounds and is about the size of a milk crate. The research team currently is shrinking it further and making it easier to use. A patent is pending. Funding for the project was provided by the Department's Office of Defense Programs through its Advanced Design and Production Technology Initiative. •

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Strength through science

Secretary announces Department of Energy fiscal year 2001 budget request

On Feb. 7, Secretary of Energy Bill Richardson released the Department of Energy's proposed fiscal year 2001 budget of \$18.9 billion. The request is \$1.6 billion over this fiscal year's appropriated level—a nine percent increase.

"Our budget reflects the Department's responsibilities to the American people," said Secretary Richardson. "It proposes to begin, as well as continue, several initiatives that cut across Department programs to enhance our energy, security, and science missions. It reflects our firm commitment to keep America on the cutting edge."

The request builds on previous years' science and technology investments to provide innovative solutions to the national security, energy, and environmental challenges facing the Department. Forty percent, or \$7.6 billion, of the fiscal year 2001 budget request is for research and development—nearly eight percent more than in fiscal year 2000.

The Department's proposed budget is organized into four business lines: science and technology, national security, energy resources, and environmental quality. Remaining activities, such as departmental administration, complete the budget request.

Science and technology

The \$3.2 billion requested for science and technology, an increase of \$337 million, or 12 percent, over fiscal year 2000, continues to support a strong national scientific infrastructure. The budget includes initiatives to emphasize ongoing work in computer simulation, microbial genomics, bioengineering, nanotechnology, and robotics.

The request includes \$182 million for the Advanced Scientific Computing Research program to increase computer modeling and simulation research and development. Also included is \$281 million for the Spallation Neutron Source and \$247 million for fusion research.

Funding of \$12 million is requested for microbial genomics, an outgrowth of the Department's work in the Human Genome Program. Microbial genomics, the study of organisms that have survived and thrived in extreme and inhospitable environments, could hold the key to energy production and use, environmental cleanup, medicine, and agriculture and industrial processing. A small program coordinated with the National Institutes of Health to focus research

on bioengineering applications and technologies needed for artificial human organs calls for \$6.7 million in funding.

Nanotechnology—research and development into extreme miniaturized technologies—is funded at \$91 million. A total of \$20 million is requested for robotics and intelligent machine research.

National security

The national security budget request totals \$6.6 billion. This is an increase of \$502 million, or eight percent, over the fiscal year 2000 budget. A total of \$6.2 billion is requested for Department programs that will be consolidated into the National Nuclear Security Agency (NNSA), a new semi-autonomous agency within the Department. Current program offices that will be included in NNSA are Defense Programs, Nonproliferation and National Security, Fissile Materials Disposition, and Naval Reactors. Albuquerque and Nevada Operations Offices also will be under the jurisdiction of NNSA.

The Defense Programs budget request is \$4.6 billion, an increase of \$273 million over the current fiscal year. The budget will strengthen the



Secretary Richardson outlines the Department of Energy fiscal year 2001 budget during the Feb. 7 press conference at Department Headquarters in Washington, D.C.

stockpile stewardship program, maintain a skilled workforce, and develop and implement tools to ensure the safety and reliability of America's nuclear deterrent—without nuclear testing.

Included in the Nonproliferation and National Security budget of \$682 million is a proposed new \$100 million long-term nonproliferation program for Russia that, for the first time, proposes a U.S.-Russian moratorium on increasing the stockpile of separated plutonium. Also included is increased funding for the Russian Nuclear Cities project.

The budget request also includes \$223 million for the Office of Fissile Materials Disposition, to continue managing storage and disposal of U.S. weapons usable fissile materials, and \$677 million for the Naval Reactors program.

The remaining national security budget includes Department offices that will not be part of the NNSA. A budget of \$340 million requested for the Office of Security and Emergency Operations reflects the need for increased cyber-security activities. This is an increase of \$56 million over fiscal year 2000. The Office of Counterintelligence is funded at \$45 million; the Office of Independent

10

Oversight and Performance Assurance, \$15 million; and the Office of Intelligence, \$38 million.

Energy resources

The \$2.2 billion requested for energy resources is an increase of \$175 million, or eight percent over fiscal year 2000. The request features several initiatives that will ensure energy security: the Climate Change Technology Initiative, the international Powerful Partnerships Initiative, the Energy Grid Reliability Initiative, the Carbon Sequestration Initiative, and the Enhanced Ultra Clean Fuels Initiative. The Bioenergy/Bioproducts Initiative to help make biomass a viable competitor as an energy source is funded at \$174 million.

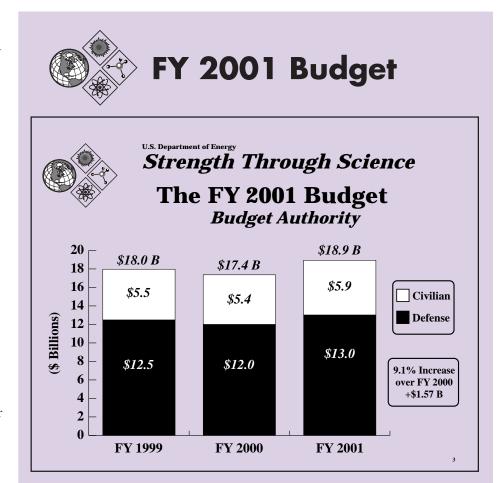
The Fossil Energy Research and Development program level of \$385 million includes funding for the new National Energy Technology Laboratory for fossil fuels research. The \$273 million requested for Nuclear Energy Programs is an increase of \$21 million over last fiscal year. Operation of the Strategic Petroleum Reserve is funded at \$158 million.

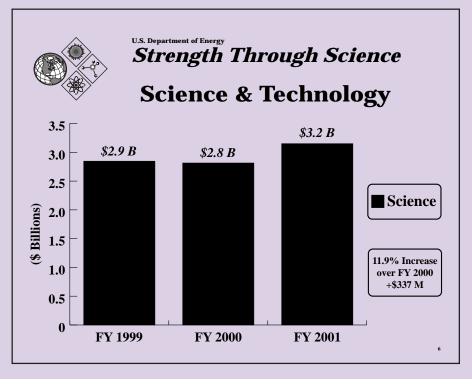
Funding for the Office of Energy Efficiency and Renewable Energy includes support for the Partnership for a New Generation of Vehicles, the Industries of the Future program, weatherization assistance; buildings technology; and the Wind Powering America and Geopowering the West initiatives.

Environmental quality

The \$6.8 billion requested for environmental quality is an increase of \$511 million, or eight percent over the fiscal year 2000 budget. The environmental management budget of \$6.3 billion supports proposals to accelerate cleanup at the Department's former nuclear weapons sites while cutting costs to the taxpayer. Included in the environmental management budget are additional funds for the cleanup of mill tailings near Moab, Utah; the Portsmouth and Padaucah Gaseous Diffusion sites; and the Privatization Initiative.

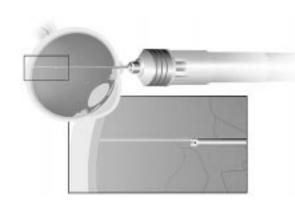
The Environment, Safety and Health budget provides an increase of \$38 million to \$166 million to make health and safety programs a key priority of the entire Department. The \$437 million requested for the Civilian Radioactive Waste Management program will support work to determine the suitability of Yucca Mountain as a permanent radioactive waste repository. Highlights of the Department's fiscal year 2001 budget request and related documents are available on the Internet at http://www.cfo.doe.gov/budget/01budget/. *





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Sensor could increase safety of eye surgery



Researchers at the Department of Energy's Pacific Northwest National Laboratory have designed and built a sensor that could reduce the risks of eye surgery by alerting surgeons to the location of critical retinal tissues. The proximity sensor (pictured at left) could be connected to an endoscope, the tool surgeons use when operating on the back of the eye. The sensor calculates the distance of the endoscope's needle to the retina and tissue.

Pacific Northwest is teaming with Johns Hopkins University's Microsurgery Advanced Design Laboratory (MADLAB) and Insight Instruments Inc. of Sanford, Fla., through a Cooperative Research and Development Agreement to share costs and results. MADLAB is expected to conduct tests of the sensor on patients this year, and Insight Instruments plans to incorporate the device into endoscopes it manufactures.

The proximity sensor also could be applied to other surgery, such as spinal operations that require surgeons to know the location of nerves. •

Secretary visits Bettis Laboratory, meets employees



Secretary of Energy Bill Richardson recently visited the Department of Energy's Bettis Atomic Power Laboratory in West Mifflin, Pa. Secretary Richardson was accompanied by William Magwood IV, Director, Office of Nuclear Energy, Science, and Technology, and Tom Beckett, Deputy Director, Office of Naval Reactors.

Bettis Laboratory is solely dedicated to the Naval Nuclear Propulsion Program, a joint DOE-Navy operation, and performs missions critical to the national defense. During his visit, Secretary Richardson reviewed ongoing development work of components designed for the VIRGINIA Class submarine and (at left) toured the Bettis facilities which are developing thermophotovoltaic cells, a leading-edge technology to convert heat generated from nuclear power directly to electric power for potential future shipboard design applications.

Secretary Richardson also reviewed Bettis' environmental and employee protection programs, personally congratulated Bettis employees who had been recognized for exceptional community service, and commended the Bettis staff for their excellent work.

Sandia 'sniffers' detect explosives, narcotics



Researchers at the Department of Energy's Sandia National Laboratories have developed hand-carried devices that, like trained police dogs, could sniff out faint odors of drugs and bombs. The portable devices are miniaturized versions of an explosives-detecting walk-through portal for airports developed by Sandia.

The smaller sniffing tools are possible with recent improvements in the underlying chemical preconcentrator technology. Researchers have been able to shrink the diameter of the preconcentrator's air intake and valves from nine inches to one inch. The preconcentrator works by drawing in a large volume of air, collecting heavy organic compounds from the air stream onto a filter, then vaporizing the organics into a smaller parcel of air that is delivered to a commercial explosives detector.

At left, Dave Hannum of Sandia demonstrates a portable swipe analysis tool that uses a sandwich-sized preconcentrator on the front of an ion mobility spectrometer (IMS). The device is capable of detecting less than a nanogram of explosives residue. ��

Savannah River division launches SpaceMan

Bill Stubbs (right), of the High Level Waste Engineering Division at the Department of Energy's Savannah River Operations Office, has developed SpaceMan, a computer program that allows a user to simulate the Savannah River Site High Level Waste (HLW) System operation. The program provides a coupled model of the Tank Farms, Defense Waste Processing Facility, and Saltstone facilities, and interfaces with the Separations Canyons and the Effluent Treatment Facility.

SpaceMan includes detailed information about each of Savannah River's 51 HLW tanks. A user can step week-by-week through a simulated operation to watch how tank levels within the HLW system are changing on a quasi-continuous basis.

Spending many hours of his own time developing SpaceMan, Stubbs was motivated by Savannah River's need for a simple tool to quickly and accurately evaluate operational strategies. "We need a computer model that is portable and easy enough to be used by anyone in HLW to help understand what will happen in the future with the steps we are taking today," he said. �



Fernald receives public participation award

The Department of Energy's Fernald Environmental Management Project in Cincinnati, Ohio, has received the Public Participation Organization of the Year Award from the International Association for Public Participation. The award is presented to an organization that best reflects the group's core values for involving the public in decision-making processes.

The Department was recognized for its success in overcoming significant citizen distrust and efforts to maintain an enduring and meaningful relationship with the public at the site. "This award is the result of an unrelenting commitment to open, honest and timely communication," said Jack Craig, Director of DOE-Fernald.

Susan Brechbill, Manager of the Department's Ohio Field Office (third from right), accepted the award on behalf of Fernald at a Fernald Citizens Advisory Board meeting. "The award reflects a culture change at Fernald and across the DOE complex," Brechbill said. "We opened up the decision-making process because the public wanted to be involved and had a good reason to be involved." *



Volunteers drive traveling science program

Most adults need a little help when discussing dinosaurs with a group of second graders. Fortunately for Deborah McMurtrie, a second grade teacher at Aiken Preparatory School in South Carolina, she had the support of geologists Jim Jordan and Elizabeth Topp from the Department of Energy's Savannah River Site. Jordan and Topp are volunteers with the Site's Traveling Science Demonstrations Program.

The Traveling Science Program, a partnership between the Site's Education Outreach Programs Department and Ruth Patrick Science Education Center, furnishes volunteers to conduct hands-on classroom activities. The program provides 250 kits that teach the principles of science and mathematics in the areas of biology, chemistry, geometry, geology, algebra, and physics.

Jordan is a veteran volunteer with the program. Topp, a first-time volunteer, said the visit to Aiken Preparatory School would not be her last. In the photo, Topp (left) and Jordan look on as the students make impressions with dinosaur teeth. •



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Winners announced in millennium art contest

In a Dec. 22, 1999, ceremony at Department of Energy Headquarters in Washington, D.C., Secretary of Energy Bill Richardson announced the student winners of the Department's Millennium "Power Art" Contest and opened a national exhibit of the top 100 works of art. Joining Secretary Richardson were the two first place winners and top contestants from the District of Columbia, Maryland, and Virginia.

"The Millennium 'Power Art' contest not only showcases the talents and creativity of young artists around the country, but it highlights the power of energy technology in our lives," said Secretary Richardson. "As evidenced by the artwork, this contest succeeded in focusing the minds of students on past energy accomplishments and the promise of tomorrow's energy technologies."

Nearly 4,000 students submitted poster art illustrating the contest theme "Energy Millennium—Honor the Past, Imagine the Future." Submissions were judged for creativity, originality, and appropriateness to the theme. Six winners were selected, three each in two age categories—grades 4 to 6 and grades 7 to 8. Each winning artist received a U.S.

Savings Bond. In addition, the first place winners received an expense-paid trip to Washington, D.C. for the awards ceremony and exhibit opening.

Aaron Yamagata, a sixth grader at the Fine Arts and Music Academy, Encino, Calif., placed first in the grades 4 to 6 category with his entry "Energy Millennium." Desiree Escobedo, fourth grade, Hawthorne Elementary School, San Antonio, Texas won second place; and Miguel Garcia, also in the fourth grade at Hawthorne, placed third.

The entry "Air, Fire, Water, Energy" by Mike Martin, seventh grade, Silver Lake Regional Junior High School, Pembroke, Mass., took first place in the grades 7 to 8 category. Placing second was seventh grader Isaac Ramos, O'Donnell Middle School, Houston, Texas, and third, seventh grader Michael Flores, Roosevelt Roads Middle School, Ceiba, Puerto Rico.

The Power Art exhibit was on display at Department Headquarters from Dec. 20, 1999, through Jan. 7,



First place winner Aaron Yamagata joins Secretary Richardson at the podium at the Power Art awards ceremony.

2000, and at Argonne National Laboratory in Illinois, Jan. 17 to Feb. 4. Future stops of the traveling exhibit include Brookhaven National Laboratory, Upton, N.Y., Feb. 14-29; Bonneville Power Administration, Portland, Ore., March 6-10; the National Association of Elementary School Principals Annual Convention, New Orleans, La., March 18-20; and Southeastern Power Administration, Elberton, Ga., April 10-28.

The top 100 works of art can be viewed on the Internet at http://www.ma.doe.gov/PowerArt/. *

Publications

Office of Inspector General reports: Semiannual Report to Congress, April 1 to September 30, 1999 (DOE/IG-0014); Waste Incineration at the Idabo National Engineering and Environmental Laboratory (DOE/IG-0454); Analytical Laboratory Capabilities at the Hanford Site (WR-B-00-01); Property and Facilities at Grand Junction (WR-B-00-02); Inspection of Selected Issues of the Chem-Bio Facility at the Oak Ridge National Laboratory

(INS-O-00-01). Available from the U.S. Department of Energy, Office of Inspector General Reports Request Line, 202-586-2744; or at **http://www.ig.doe.gov**/.

Federal Technology Alert: Steam Trap Performance Assessment (DOE/EE-0193) describes the various techniques and technologies for evaluating steam traps, with a focus on the more advanced technologies using ultrasonic sound or fluid conductivity measurement. Available from the FEMP Help Desk, Energy Efficiency and Renewable Energy Clearinghouse, 800-363-3732, and at http://www.eren.doe.gov/femp/

Energy Information Administration reports: Annual Energy Outlook 2000 (DOE/EIA-0383-2000); U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves, 1998 Annual Report (DOE/EIA-0216-98); The Changing Structure of the Electric Power Industry 1999: Mergers and Other Corporate Combinations (DOE/EIA-0562-99). Available from the U.S. Government Printing Office, 202-512-1800; the National Energy Information Center, EI-30, Room 1E-238 Forrestal Building, USDOE, Washington, DC 20585; 202-586-8800; and at **http://** www.eia.doe.gov. *

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prodtech/newtechdemo.html.

FETC designated newest national laboratory

On Dec. 10, 1999, Secretary of Energy Bill Richardson designated the Department of Energy's Federal Energy Technology Center in Morgantown, W.V., and Pittsburgh, Pa., as the Department's newest national laboratory. The two research facilities, located 65 miles apart but operated as a single entity, has been renamed the National Energy Technology Laboratory.

"It's time we elevate the profile and prestige of this world-class facility, which has been helping solve energy and environmental problems for more than 50 years," Secretary Richardson told employees in Morgantown and (by video link) in Pittsburgh. "By enhancing the stature of this lab, we're recognizing it as one of the Department's premier assets, and as an integral part of the U.S. research community." Secretary Richardson was in Morgantown to meet employees and civic leaders and to tour the facility.

Secretary Richardson noted that the new national laboratory is meant to complement the Department's National Renewable Energy Laboratory in Golden, Colo. "Our energy portfolio must include a balanced mix of traditional and non-traditional fuels. We have established a national laboratory for renewable energy research; my action today will establish a complementary facility for fossil fuel research."

"The action to make the Federal Energy Technology Center a national laboratory signals a recognition that fossil fuels must continue to be an important part of the energy reservoir both nationally and internationally," said U.S. Senator Robert C. Byrd, who attended the designation ceremony. "Much of

the Center's work is dedicated to the worthy goal of developing innovative, clean and efficient technologies that will allow our nation to meet its growing energy needs."

Secretary Richardson also announced he is strengthening the new national laboratory's core capabilities by creating a Center for Advanced



Secretary of Energy Bill Richardson (center) signs the certificate designating the Department of Energy's Federal Energy Technology Center as the National Energy Technology Laboratory (NETL). U.S. Senator Robert Byrd and NETL Director Rita Bajura witness the signing.

Natural Gas Studies. The new center will coordinate development of new technologies to improve the discovery and production of natural gas, as well as new ways to make the future use of natural gas cleaner and more efficient. It will be the Department's primary point of contact with the nation's natural gas industry. ❖

Performance-based management help offered

As the Department of Energy works to comply with requirements of the Government Performance and Results Act of 1993 (GPRA), many offices are adopting a performancebased management approach to operations. At the Department, performance-based management is a strategic management tool used to plan for, manage, and evaluate organizational, employee, and contractor performance; improve the delivery of products and services; facilitate communications with customers and stakeholders; encourage employees and contractors to achieve excellence; and guide decision making.

For offices unsure of where to start or what to do to become performance-based management ready, the Performance-Based Management Special Interest Group (PBM SIG) may be able to help. Formed in 1993 and sponsored by several Department program offices and contractor organizations, the PBM SIG is made up of DOE Headquarters and field employees as well as DOE contractor staff who are directly involved in one or more facets of the performance-based management process. The group's mission is to facilitate, advance, and promote performance-based management at the Department.

The PBM SIG offers the following assistance to individuals and organizations as they transition to performance-based management:

 On-site workshops in the areas of strategic planning, performance measurement development, data collection and analysis, benchmarking, continuous improvement, process improvement, and reengineering.

- Useful resources such as "How to Measure Performance—A Handbook of Techniques and Tools" and a six-volume performancebased management handbook.
- An extensive, up-to-date web site, http://www.orau.gov/pbm, that includes sections on resources and tools and performance-based management related links.
- Quick dissemination of requests for assistance or information to a nationwide network of performance-based management experts.

To become a member of the PBM SIG, register on the Internet site listed above. For more information or to request on-site assistance, contact Will Artley, PBM SIG Coordinator, 901-373-7493, or e-mail artleyw@orau.gov. •

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Department offices share the holiday spirit

Throughout the year, Department of Energy employees at sites across the country always are there to lend a helping hand to their local communities and to share with those in need. The past holiday season was no exception.

On Nov. 18, 1999, 60 employees of Headquarters' Office of Inspector General participated in the office's Second Annual Community Service Day at the Capital Area Community Food Bank in Washington, D.C. In addition to donating canned goods and nonperishable items, the employees helped to sort, box, and stack over 13,000 pounds of food and miscellaneous items donated to the Food Bank by area companies. Inspector General employees also annually support individual underprivileged families through a local shelter during the holiday season.

Oak Ridge National Laboratory employees supported several charitable events to help the needy of east Tennessee during the holidays. Protective Forces helped raise \$1,300 for the Feed the Hungry campaign sponsored by the Knox Area Rescue Ministries. The money helped in preparing Thanksgiving Day meals for the homeless and to fill food baskets for needy families. The Office of Radiation Protection collected three truckloads of food for the Knoxville Second Harvest campaign. And the laboratory's Values Committee provided gifts to 165 children in an eight-county region of East Tennessee.

Through its "Christmas

for Others" program, the
Oakland Operations
Office in California
collected cash donations
and new merchandise for
gifts for disadvantaged children.
The organizing committee chose
five disadvantaged families. Over
60 Oakland Operations employees
contributed toys and clothing, as
well as \$400 that also went toward
clothing and toys for the families.
Committee members Bertha Crisp,
Margaret Carrol, Lisa Buffkins,



Members of the Oak Ridge National Laboratory Values Committee collect the gifts donated by laboratory employees for needy children.

Galvin Brown, Leilani Olive, Michelle Loveless, Vallerie Sullivan, and Reatha Wiggins wrapped and delivered the items to the families.

A hearty thank you goes out to these and all Department offices that cared enough to share with others over the holidays. •

Events

March

21 Eighth National Energy Modeling System/Annual Energy Outlook Conference, Arlington, Va. Sponsored by the Department of Energy's Energy Information Administration (EIA). Speakers and attendees from Federal and state governments, private industry, and trade associations will discuss energy issues particularly related to EIA's Annual Energy Outlook 2000 and the National Energy Modeling System. Conference registration is free, but space is limited. To register, contact Susan H. Holte, 202-586-4838, susan.holte@eia.doe.gov, or Peggy Wells, 202-586-0109, peggy.wells@eia.doe.gov, or visit the conference Internet site at http:// www.eia.doe.gov/oiaf/aeo/conf/ index.html.

May

5-8 10th National Science Bowl, Chevy Chase, Maryland. Sponsored by the Department of Energy. Winners from 60 regional tournaments being held across the country from January through March will compete in the national competition. For questions or to volunteer, contact Sue Ellen Walbridge, Office of Science, 202-586-7231, or e-mail at sue-ellen.walbridge@oer.doe.gov.

12-19 NESEA American Tour de Sol, 12th annual U.S. electric vehicle championship, from New York, New York, to Washington, D.C. Sponsored by the Department of Energy, the New Jersey Department of Transportation, the New York State Department of Environmental Conservation, and others. Organized by the Northeast Sustainable Energy Association. For more information, contact NESEA at 413-774-6051.

June

12-16 International Decommissioning Symposium 2000 (IDS 2000), Knoxville, Tennessee. Sponsored by the Department of Energy and its Office of Environmental Management in cooperation with the International Atomic Energy Agency. The symposium addresses issues related to decommissioning United States and international nuclear facilities; treating and disposing of radioactive, chemical, and low-level and transuranic waste; and decontaminating metal and concrete. More information is available at http://www.IDS2000.org. *

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People IN ENERGY

Ned Sauthoff, physicist and Head of the Off-site Research Department at the

Department of Energy's Princeton Plasma Physics Laboratory, is the new President-Elect of the Institute of Electrical and Electronic Engineers-USA (IEEE-USA). Elected by the IEEE's U.S. members, Sauthoff's post is a



three-year assignment to the group's Board of Directors: President-Elect in 2000, President in 2001, and Past-President in 2002. IEEE has about 320,000 members worldwide, including more than 225,000 in the United States.

Secretary of Energy Bill Richardson has named Brian Costner as Senior Policy Advisor for environment, safety and health issues, including environmental policy, worker health and safety, and public health. Previously, Costner was Director of the Energy Research Foundation, a non-profit environmental organization addressing site-specific and national Department of Energy issues is Columbia, South Carolina. He has served on several Federal, state, and local advisory and working committees, including the Department's Environmental Management Advisory Board from 1994 to 1999 and the Department's Worker Health and Safety Committee.

Susan J. Senner has been named Deputy Director of Communications at

the Department of Energy's Pacific Northwest National Laboratory (PNNL). Senner will oversee more than 100 staff engaged in staff and community relations, marketing communications,

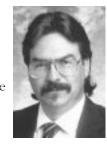


media relations, and technical and electronic communications. Previously, Senner was a senior public relations specialist in the Department's International Nuclear Safety Program office at PNNL.

Jane L. Monhart has been appointed Fermi Group Manager at the Department of Energy's Chicago Operations Office. As the senior Department official at Fermi National Accelerator Laboratory (Fermilab) in Illinois, she will be responsible for the on-site administration of the Department's contract with Universities Research Association, Inc., for the management and operation of Fermilab. Most recently, Monhart served as Acting Director and Deputy Director of the Contract Reform and Privatization Project Office at DOE Headquarters.

Dr. Robert Lauf, group leader in the Metals and Ceramics Division at the

Department of Energy's Oak Ridge National Laboratory (ORNL), has been named the 1999 Tennessee Industrial Scientist of the Year. The award recognizes a scientist who has worked closely with industry in commer-



cializing technology or in technology initiatives. Lauf was honored for his achievements during his 21 years at ORNL, which includes four R&D 100 Awards and successfully transferring his technologies to private industry.

Jack Campbell, a scientist at the Department of Energy's Lawrence Livermore National Laboratory recently received the 1999 Otto Schott Research Award for his "exemplary work in the field of laser glass." The award was presented at the European Society of Glass Conference in Prague, Czech Republic.

Dr. Carl Fliermans, a microbial ecologist at the Department of Energy's Savannah River Technology Center

(SRTC), has received the 1999 Distinguished Scientist Award from the Citizens for Nuclear Technology Awareness. The organization presents the annual award to honor outstanding



achievements in physical, biological, mathematical, or engineering sciences. Fliermans was recognized for his work with the SRTC's Environmental Biotechnology Section and for his microbial research in the environmental field.

Mitchell D. Erickson, Director of the Department of Energy's Environmental Measurements Laboratory in New York, was recently honored as a member of a team that was selected among the Top 40 of the 4,000 R&D 100 Award winners over the past 40 years. The team, consisting of researchers at the Department's Argonne National Laboratory (ANL), 3M Company, and IBC Advanced Technologies, developed Empore Rad Disks, a membrane technology for the selective adsorption of radioisotopes from aqueous samples. Erickson was with ANL in 1996 when the team received the award.

Six scientists at the Department of Energy's Lawrence Livermore National Laboratory (LLNL) and Sandia National Laboratories have been named Fellows of the American Physical Society. Honored at LLNL were Michael Key and Peter Young, Laser Programs Directorate; Kennedy Reed, Physics Directorate; and Stephen Libby, Defense and Nuclear Technologies Directorate. At Sandia, plasma physicist Chris Deeney and material physicist Norm Bartelt were elected.

Laurin Dodd, former senior program manager for the International Nuclear Safety Program at the Department of Energy's Pacific Northwest National Laboratory, has been named associate laboratory director at the Department's Idaho National Engineering and Environmental Laboratory (INEEL). Dodd will direct the national security program for INEEL.

Bill Schwenterly, a researcher in the Fusion Energy Division at the Department of Energy's Oak Ridge National Laboratory, has been appointed associate editor of the journal *Transactions on Applied Superconductivity*, published by the Institute of Electrical and Electronic Engineers. He will focus on articles related to wire, cable, and power applications. �

Milestones

YEARS OF SERVICE

January 2000

Headquarters

Chief Financial Officer - Michael L. Telson (25 years). Congressional/Intergovernmental - J. Michael Wisniewski (30). EIA - John R. Moens (30), William D. Liggett (25). Energy Efficiency - Barbara L. Mandley (40), James J. Childs (30), Carl E. Adams (25). Envir.

Management - Thomas D. Anderson (30), Malika S. Hobbs (25), Roxzanne S. Jones (25), Margaret V. Price (25), William E. Wade (25).

Envir., Safety & Health - Myrna L. Steele (35), John A. Yoder (35), Loretta A. Young (30), Lois M. Thompson (25). General Counsel - Maryann M. Shebek (30). Inspector General - Ray J. Madden (30). Management/Administration - Ronald A. Mordini (40), Robert B. Sympson (35), Carolyn J. Collins (30), Marolyn W. Hester (30), Barbara A. Mason (25), Sandra S. Vincent (25).

Nuclear Energy - James R. Scheip (30), Carol A. Warner (30). Public Affairs - Robin S. Rosenhaft (30). Science - Mark A. Wilson (30), Milton D. Johnson (25). Security/Emergency Operations - Rosalie H. Weller (40), Don R. Reed (35), David A. Jones (30), Joseph C. Juras (25).

Field

Albany Res. Center - Larry R.
Penner (25). Albuquerque - Claud
J. Tillman (30), Vincent J. Zebrowski
(25). Chicago - Lynn R. Lohman
(25). Idaho - Paul P. Martin II (25).
National ETL - Daniel L. Cillo (25),
Michael L. Eastman (25). Nevada Richard D. Betteridge (25), E. Frank
Di Sanza (25), Kenneth W. Powers
(25). Oak Ridge - Robert L. Stroud
(30), Kathy L. Braden (25), Melda J.
Rafferty (25), Donald E. Sullivan (25),
Alan W. Trivette (25), Kenneth W.
Warden (25).

Oakland - Theron P. Erickson (40), Clifford A. Shaw (30), June White (30). **Philadelphia Reg. Office** -

Harriette Powell (35). **Richland** - Thomas H. Davies (25), Ami B. Sidpara (25). **Rocky Flats** - Elizabeth A. Jordan (25), Marcy A. Nicks (25). **Savannah River** - Franklin I. Black (25), James W. McCullough, Jr. (25). **Southwestern Power** - Larry L. Woolverton (30), Robert F. McAllister (25), George E. Robbins III (25), Katherine C. Thomas (25).

Strategic Pet. Reserve - Allen Fruge (30). Western Area Power - Robert B. Dwinell (30), Ronald H. Miller (30), Pamela B. Berg (25), Bobby G. Hagler (25), Edward F. Hulls (25), Arthur L. Jelsma (25), John N. Montagna (25), John P. Sharp (25), John E. Stonebarger (25).

February 2000 Headquarters

Chief Financial Officer - Sylvia Watson (25 years). Defense Programs - Henry K. Garson (30), Nancy J. Onley (25). Economic Impact/Diversity - William L. Garrett (25). EIA - Muriel B. Moorhead (30). Energy Efficiency - Diane B. Pirkey (30), Louis J. Sousa (30), Edward J. Wall (25). Envir. Management - Maurice W. Daugherty (35), Donald J. Barnes (25). Envir., Safety & Health - Kenneth O. Matthews (35), Russell S. Scott (30).

Fossil Energy - Kenneth L. Hong (30), Samuel J. Biondo (25).
Inspector General - John C. Lucas (30). International Affairs - Linda F. Whitted (25). Management/
Administration - Barbara A. Little (25). Radioactive Waste - Charles M. Smith (30). National Security - Susan J. Rose (30). Science - Francis D. Freeburn (35), Mary E. Beasley (30). Security/Emergency Operations - Darryl B. Toms (30).

Field

Albuquerque - Patrick G. Currier (30), William J. Chavez (25), Michael L. Daugherty (25), Jimmy O. Hadaway (25), Fred P. Jaramillo (25).

Chicago - Linda M. Rohde (35), Carl V. Gogolak (30). Denver Reg. Office - Margaret M. Ryan (25). Golden - John A. Herrick (25). Idaho - Donald E. Shadley (35). Nevada - Audrey S. Clark (25). Oak Ridge - James L. Cain (30). Oakland - Shaun D. Kesterson (30), Donna L. Kelly (25).

Richland - Robert C. Barr (30), Jeanne M. Nelson (25). Rocky Flats - Shirley M. Johnson (25). Savannah River - William J. Brumley (30), Perry E. Dukes (25), August Maniez, Jr. (25), Thomas C. Walker, Jr. (25). Strategic Pet. Reserve - Linda M. Loiacano (30). Western Area Power - James B. McHan, Jr. (30), Angel Valenzuela (30), Dennis J. Rubbelke (25), Charles A. Valberg (25). Yucca Mountain - Christopher A. Kouts (25).

RETIREMENTS December 1999

Headquarters

Chief Financial Officer - Elizabeth E. Smedley (35 years). Congressional/Intergovernmental - T. J. Hopkins (32), Karen Rosenthal (34), Beth E. Vilsack (26). Defense Programs - Mary W. Brandenburg (21), Richard W. Brown (15), Mary H. Gaynor (30), Caleb D. Glass (29), Carole J. Houck (32), B. Jane Morgan (38), Michael P. Nightingale (26), Paul H. Smith (29), Charles E. Stuart (21), G. Thomas Todd (31).

Richard S. Fein (29), Fern H. Spivy (26), Denice K. Tyree-Turner (29).

EIA - Charles C. Heath (26),
Lawrence J. Prete (33). Energy

Efficiency - Louis V. Divone (25),
Daniel E. Wiley (11). Envir. Management - Jo-Ann Bassi (25), Joseph A. Coleman (35), Patricia B. Evans (35), V. Gopinath (15), Earl Hazel, Jr. (38), Irwin Spickler (27), John F.
Springer (10), James W. Wagoner II (30), Mary J. Wisenbaker (25),
William Wisenbaker, Jr. (25).

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Envir., Safety & Health - Kenneth C. Duvall (30), Leonard M. Lojek (35), Gary W. Roles (21), Robert M. Russell (36). FERC - Virginia H. Troyer (20). Fossil Energy - Ralph A. Avellanet (22), Peter J. Cover (17), Loren E. Farrar (27), Fred A. Hutchinson (38), Thelma I. Summers (37). General Counsel - George V. Samels (30), Maxine A. Woods (32). Hearings & Appeals - Geneva B. Ables (32), Abraham Silverstein (23).

Inspector General - Annella F. Chamblee (19), Ray B. Richardson (35), Kenneth H. Sands, Jr. (30). Management/Administration - John R. Franklin (31), Charles M. Morris (38), Jeremy C. Schuller (33), William S. Todd, Jr. (30). National Security - Alex B. Crawley (35). Nuclear Energy - Charles H. Brown, Jr. (34), Walter P. Engel (42), Charles F. Martin (32), Jo Ann B. Norris (30).

Policy - Richard H. Ball (26). Public Affairs - Penelope A. Adams (30), Larry E. H. Chaney (37). Radioactive Waste - Carl W. Conner (35), Sandra K. Vinson (33). Science - Thaddeus E. Tomczak (38). Security/Emergency Operations -Gary D. Crowl (35), Carl Hassell, Jr. (39), Louis C. Ritchie (36), Albert D. Temple (20), Jack Whichard (31).

Field

Albuquerque - Francisco D. Briceno (29), Gerald L. Brownlow (31), James H. Chafin (18), Matilde L. Espinoza (12), Sandra E. Felder (32), Kathryn L. Gallagher (20), Nora J. Giles (22), Theodore J. Giovanis (36), Alex R. Griego (34), Lee F. Grymkoski (24), Margaret G. Hodge (21), E. Kent Hunter (28), Earl T. Jones (28), James W. Lester (28), Rosita M. Maroone (30), Janet C. McDonough (22), James A. Phoenix (20), Frank W. Rider (17), Tony M. Thomas (29), Thomas Uko (33), Gilberto Valenzuela (37), Thomas W. Walton (22), Donald B. Williams (24).

Chicago - John D. Anderson (32), Dean A. Arnold (23), Robert B. Cass (20), Sheena P. Coleman (29), Nicki E. Dvorak (29), Eloise P. Fisher (36), Edward J. Jascewsky (30), David J. Korte (32), Daniel E. Remus (30), Khalida S. Scheidelman (22), Joan M. Shands (23), Clarence R. Sherrod (26), Frederick W. Wysk (9). **National ETC** - Charles A. Komar (38), James A. Marsh (31), Joseph W. Martin (36), Richard R. Schehl (30), Gary E. Staats (13).

Nevada - Cheryl L. Herman (22), Virginia A. Lubic (34), Frank R. Maxwell (31), Charles E. McWilliam (25), James D. Rorer (32), Alice M. White (20). Oak Ridge - Richard R. Anders (35), Elaine M. Biondo (25), Martha M. Cary (18), Ray Dyke (19), Eugene W. Gillespi (33), Stephen D. Hamel (39), Gilda F. Henson (20), William J. Hough, Jr. (33), Wilma D. Mason (21), Lynn McNamara-Keener (20), E. Voleen Mutter (17), Janet B. Nottingham (25), Patricia F. Taylor (21).

Oakland - Susan M. Almeida (25), William L. Franzwa (33), James M. Hanley (31), Henry B. Jones (11), John G. Plencner (25), Jean H. Pruitt (24), Sheridan A. Studamire (24), Drayton L. Swartz (30). Ohio -James A. Smotherman (28). **Richland** - Ruth L. Hatfield (21), Deann K. Knuter (12), Elizabeth A. Maupin (24), Gary W. Rosenwald (12), Steven M. Sandlin (15), Mary E. Tschirky (8). Savannah River -Donald O. Druelle (31). James M. Morris (35). **Southwestern Power** -Beverly Dyer (26), Yvonne M. Grewe (13). **Yucca Mountain** - Bernard J. Verna (10).

Western Area Power - James A. Biggs (20), Clayton Crouse (25), David D. Darling (17), Gail E. Ellison (26), Rodney R. Freeman (26), Leroy L. Haidle (35), William J. Hartline (9), Ronald F. Howay (28), Theodore W. Hunt (21), Robert O. Johnson (34), Clifford L. Johnston (24), Patsy J. Martin (18), L. H. McAllister (29), Linda M. Meyers (25), Harold J. Odegaard (37), Merle A. Panzer (26), Oliver W. Perkins (36), Eugene R. Poelstra (29), Robert L. Reis (34), Charles H. Rich, Jr. (31), Joseph C. Riojas (23), Leo G. Roux (38), Donald R. Sanders (39), Karon L. Todorovich (25), Marie C. Tucker

(31), Terry D. Waggoner (30), Rodger W. Weakley (24).

January 2000 Headquarters

EIA - Diana R . House (20 years). Envir. Management - Cynthia C. Kelly (26), Karl S. Veit (32), Barbara C. Watson (38). Nuclear Energy -Frances M. Dix (30). Security/ Emergency Operations - Richard D. Wilson (19).

Field

Albuquerque - Margie J. Cifuni (20), Richard D. Erdman (28), Richard A. Groninger (30), Patricia N. Lent (21), Ronald W. Robin (25), Richard A. Schlimme (32), Betsy A. Shaw (29), Charlotte A. Thomen (23), Nora G. White (21), J. Alan Yeazel (31). Chicago - Edward C. Barattia (26), Beatrice C. Cassidy (40). Idaho - Don L. Agnew (15).

National ETC - Carroll A. Lambton (41), Daniel P. McKeegan (25).

Nevada - Donald R. Elle (32), Travis D. Hunsaker (12), James E. Kvool (15), Megan K. Lohmann (27), Beverly J. Nalley (20), Stephen C. Ronshaugen (25), Larry L. Rouse (31), Barbara A. Sage (32), Alice M. Scammell (20), Dale C. Watson (29), Patricia L. Watson (38).

Oak Ridge - Antonio Acuna, Jr. (30), Nancy L. Beck (32), Challis Broughton (29), Elizabeth C. Collins (20), Peter J. Gross (33), Raymond L. Lahti (26), Kenneth F. Leifheit (27), Robert J. Spence (34), Anthony L. Watkins (26), Leroy Wiggins (31), Barry S. Willis (35). Oakland -Arlene E. Marinell (39).

Richland - James D. Bauer (23), Karen K. Randolph (25), Carolyn E. Reeploeg (21), R. Pierre Saget (23), Clifford B. Sieling (26), Alan C. Walker (30). Rocky Flats - David G. Griffith (15). Savannah River -Edwin A. Korzun (8). Southwestern Power - Robert J. Inman (28). Western Area Power - Victoria L. Ponce (35), Robert A. Stears (33). *

Department team releases power outage report

On Jan. 4, a Department of Energy investigation team presented to Secretary of Energy Bill Richardson its interim report of the power outages and disturbances that occurred last summer in the United States as high temperatures and heavy demand strained electric systems. The team of Department and academic experts investigated outages in New York City, Long Island, New Jersey, the Delmarva (Delaware-Maryland-Virginia) Peninsula, Mississippi, Arkansas, Texas, Louisiana, and Chicago, and non-outage disturbances in New England and the Mid-Atlantic States.

The investigation's findings warn that while the electricity industry is undergoing fundamental change, the necessary operating practices, regulatory policies, and technological tools for dealing with those changes are not yet in place to assure an acceptable level of reliability. A significant increase in electricity use, especially during times of peak demand, is stressing the electric system.

A final report providing recommendations is expected to be issued in March. The final report will be followed by regional policy-level discussions across the country among industry leaders and Federal, state, and local government officials.

The interim report is available on the Internet at http://tis.eh.doe.gov/post/.

January/February 2000

AROUND

Mixed oxide fuel safely shipped to Canada

In January, the Department of Energy safely completed its one-time shipment of a small quantity of mixed oxide nuclear fuel to Canada for the Parallex Project. The Parallex experiment will provide technical information on the performance of Canadian Deuterium Uranium (CANDU) reactors to burn the fuel and to help dispose of Russian surplus weapons-grade plutonium.

Nine fuel rods containing a total of less than 120 grams of plutonium were shipped without incident from the Department's Los Alamos National Laboratory in New Mexico to the Atomic Energy of Canada, Limited, test reactor in Chalk River, Ontario. The material, shipped in specially designed transportation containers conforming to strict U.S. and Canadian safety standards, crossed into Canada at Sault Saint Marie. Mich.

New initiative supports bioenergy industry

On Jan. 6, Secretary of Energy Bill Richardson announced a new initiative to bring biomass energy and biomass-based chemicals a step closer to the marketplace. The initiative supports the goals of Executive Order 13134 on biobased products and bioenergy issued last August. An integrated bioenergy industry will boost opportunities for American farmers, while enhancing our energy security and protecting the environment, said Secretary Richardson.

The Department has issued a solicitation for projects to be selected in either of two phases and is providing \$4.3 million for the award program. The first phase would result in a laboratory-scale demonstration of the proposed technology. The second phase would advance the technology to prototype-scale hardware and include a detailed design for a pilot-scale facility.

The awards will be cooperative agreements with a term of 12 months or longer. Between two and four individual awards are expected to be granted in each of the two phases. There is a required minimum of 20 percent cost share by each participant. Responses are due March 7, 2000. The solicitation is available at http://www.eren.doe.gov/golden/solicitations.html. Information on the bioenergy initiative is available at http://www.eren.doe.gov/bioenergy_initiative/. *

United States Department of Energy (PA-40) Washington, DC 20585

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